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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,029	08/27/2003	Philip D. Nguyen	2003-IP-010303U1	5135

7590 06/24/2005
Robert A. Kent
Halliburton Energy Services
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Duncan, OK 73536

EXAMINER

FULLER, BRYAN A

ART UNIT PAPER NUMBER

3676

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,029

Applicant(s)

NGUYEN ET AL.

Examiner

Bryan A. Fuller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 34 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/27/03, 2/1/05, 4/20/05, 2/4/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

For examining purposes the misnumbered claims 33, 34, and 35 have been renumbered 32, 33, and 34, respectively.

2. Claims 6 – 7, 11, 23 – 24, and 28 are objected to because of the following informalities: tackyfier is misspelled. The correct spelling is tackifier. Appropriate correction is required.

3. Claim 5 is objected to because of the following informalities: claim 5 is dependent upon claim 7. A claim cannot be dependent on a claim that follows it. Appropriate correction is required. The claims have been examined as if claim 5 was dependent upon claim 4.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1, 6 – 8, 10 – 11, 18, 23 – 25, and 27 - 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al (6,209,643).

With respect to claims 1 and 18: Nguyen et al (6,209,643) teaches in column 9, lines 12 – 18 a method of controlling fines migration in a subterranean formation comprising the steps of: (a) placing a tackifying composition into the subterranean formation; and, (b) placing an after-flush fluid into the subterranean formation.

With respect to claims 6 – 8, 10 – 11, 23 – 25, and 27 - 28: Nguyen et al (6,209,643) teaches in column 3, line 29 – column 12, line 24 the use of a polyamide as a tackifier and the use of a solvent in the tackifying composition. The reference also teaches the tackifier present in the amount in the range of 1% to 10% and that the tackifying composition has a viscosity less than about 100 cP.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 – 5 and 19 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (6,209,643) in view of Bannister (4,681,165).

With respect to claims 2 – 5 and 19 – 22: Nguyen et al (6,209,643) teaches the features as claimed except for the use of an aqueous pre-flush fluid that comprises a specific surfactant. Bannister teaches in column 1, line 5 – column 2, line 23 the use of

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an aqueous pre-flush fluid that comprises a non-ionic surfactant. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Nguyen et al's (6,209,643) method by including an aqueous pre-flush fluid that comprises a non-ionic surfactant in view of the teachings of Bannister. The motivation for the combination of these two references is that the additional step and materials used in Bannister is advantageous in the sense that it provides aqueous chemical wash compositions having effective fluid loss control over an extended range of operating temperatures.

8. Claims 12 - 14 and 29 - 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (6,209,643) in view of Gilmour et al (6,534,449).

With respect to claims 12 - 14 and 29 - 31: Nguyen et al (6,209,643) teaches the features as claimed except for the after-flush fluid comprising water or a specific surfactant. Gilmour et al teaches in column 3, lines 16 - 48 the use of an aqueous after-flush fluid that comprises a non-ionic surfactant. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Nguyen et al's (6,209,643) method by including an aqueous after-flush fluid that comprises a non-ionic surfactant in view of the teachings of Gilmour et al. The motivation for the combination of these two references is that the materials used in Gilmour et al is advantageous in the sense that it provides aqueous chemical wash compositions having effective fluid loss control over an extended range of operating temperatures.

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9. Claims 9, 16 – 17, 26, and 33 – 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (6,209,643) in view of Nguyen et al (5,960,878).

With respect to claims 15 and 32: Nguyen et al (6,209,643) teaches the features as claimed except for the method of injecting the after-flush fluid and the tackifying composition at a matrix flow rate. Additionally, Nguyen et al (6,209,643) does not teach the use of butyl bottom alcohol as the specific solvent. Nguyen et al (5,960,878) teaches in column 6, lines 3 – 38 the use of butyl bottom alcohol as a specific solvent for the tackifying composition. Nguyen et al (5,960,878) also teaches the method of injecting fluids into a subterranean formation at matrix flow rates. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Nguyen et al's (6,209,643) method by introducing the after-flush fluid and the tackifying composition into the subterranean formation at a matrix flow rate and the use of butyl bottom alcohol as the solvent in view of the teachings of Nguyen et al (5,960,878). The motivation for the combination of these references is that introducing fluids into subterranean formations at a matrix flow rate minimizes the possibility of additional fines released within the formation.

10. Claims 15 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (6,209,643) and Bannister as applied to claims 2 and 19 above, and further in view of Nguyen et al (5,960,878).

With respect to claims 15 and 32: Nguyen et al (6,209,643) and Bannister teach the features as claimed except for the method of injecting the pre-flush fluid at a matrix flow rate. Nguyen et al (5,960,878) teaches in column 6, lines 3 – 38 the method of

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injecting fluids into a subterranean formation at matrix flow rates. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of Nguyen et al's (6,209,643) and Bannister's methods by introducing the pre-flush fluid into the subterranean formation at a matrix flow rate in view of the teachings of Nguyen et al (5,960,878). The motivation for the combination of these references is that introducing fluids into subterranean formations at a matrix flow rate minimizes the possibility of additional fines released within the formation.

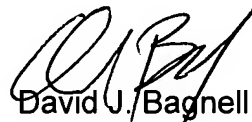
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan A. Fuller whose telephone number is (571) 272-8119. The examiner can normally be reached on M - Th 7:30 - 5:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David J. Bagnell
Supervisory Patent Examiner
Art Unit 3672

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